

LISTING OF THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-5. (Canceled).

6. (Previously Presented) A method for a motor vehicle having an adaptive distance and speed control for lane allocation of vehicles on multi-lane roads, comprising:

carrying out the lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects by:

correlating the frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads having a defined width and (b) characteristic lateral displacement histograms for different lanes used by a succeeding vehicle; and

outputting a model part having a highest correlation to the frequency distribution as a lane hypothesis.

7. (Previously Presented) A device comprising:

means for carrying out a lane allocation in a model-based manner via a frequency distribution of lateral displacements of detected radar objects; and

means for correlating a determined frequency distribution with one of (a) stored models for frequency distributions of lateral displacements, relating to lane allocation for multi-lane roads having a defined width and (b) characteristic lateral displacement histograms for different lanes used by a succeeding vehicle.

8. (Previously Presented) The device according to claim 7, further comprising:

means for outputting a model part having a highest correlation to the determined frequency distribution as a lane hypothesis, the lane hypothesis including a number of lanes and a lane used by one's own vehicle.

9. (Withdrawn) A method for detecting a misalignment of a sensor on the basis of reflection, comprising:

detecting a horizontal misalignment from a position of average values for lanes in a histogram with respect to a vehicle axis.

10. (Withdrawn) A device comprising:

means for storing, with equivalent object treatment, a first histogram for a lateral displacement of a detected object and a second histogram for a distance of a detected object; and

means for determining a misalignment angle of a sensor by determining a centroid of the first and second histograms.

11. (New) A method for performing lane allocation of consecutive vehicles on a multi-lane road, the method comprising:

determining lateral displacements of radar sensor detected objects relative to a longitudinal vehicle axis, wherein the lane allocation is implemented in a model-based manner via a frequency distribution of the lateral displacements of the radar sensor detected objects;

determining a histogram of a frequency distribution of the lateral displacements; correlating the histogram to stored lane models; and

detecting an instantaneously driven lane of the multi-lane roadway based on a lane model having a greatest correlation to a laterally-offset histogram.